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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
	10/722,993	HONG, JAY WU
Office Action Summary	Examiner	Art Unit	
	Kenan Cehic	2609	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>12 October 2007</u>.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-10,12-27,29-49,51-56* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-3,5-1012-22,24-27,29-38,40,49,51-56* is/are rejected.

7) ☐ Claim(s) *4,23 and 39* is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>02/20/2004</u>.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.·

1.   Claim 36-43, 49, 51-56 rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

For claim 36, the limitations "means for responding waiting for a settable time interval

for the means for wirelessly receiving to receive and respond to receiving a configuration

request message from a second wireless, " are unclear and not understandable.

Additionally, the sentence structure/grammar is improper.

For claim 49, the limitations "means for responding to the means for wirelessly receiving

wirelessly receiving" are unclear and not understandable. Additionally, the sentence

structure/grammar is improper.

Dependent claims are rejected since they depend on rejected claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966),

that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the

claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

claims was commonly owned at the time any inventions covered therein were made absent any

evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c)

and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2.   Claim 1, 6, 7, 20, 24, 25, 36, 40,41, 44 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Havarinen et al (US 2002/0012433 A1), in view of Narayanan et al (US

2004/0229612) and Meade, II et al. (US 2002/0184304)

For claim 1, Havarinen et al discloses a method in a first wireless station (see Figure 1,

reference sign MIP interconnected with GAGW and HAAA, and section 0172 lines 1-5)

of a wireless network (see section 0172 and section 0163 lines 3-5), the method

comprising:

wirelessly receive a configuration request message (see Figure 2, MT sends registration

request to the PAC, which is part of the MIP) from a second wireless station; (see Figure

1, reference character MT and section 0171 lines 4-6) and

generating a configuration data message (see Figure 2, section 0180 and 181) for the

second wireless station (see section 0182) including one or more configuration

parameters (see sections 0180-0182) for the second wireless station (see section 0182),

and wirelessly transmitting (see Section 0171 line 4-6) the configuration data message to

the second wireless station (see section 0182),

such that the second wireless station can be configured (see section 0187).

For claim 6, 24, 40 Havarinen et al discloses , wherein the generating includes generating

random numbers (see section 0189 lines 4-8), and wherein configuration parameters

includes a security key (see section 0198 lines 14-17).

For claim 7,25,41 Havarinen et al. discloses, wherein the first wireless station is an access

point (AP) (see section 0172) of the network (see Figure 1), and the second wireless

station is to be a client station of the AP (see section 0368).

For claim 20, Havarinen et al disclose carrier medium (see sections 0134-139),

comprising one or more computer readable code segments to instruct a processor to

implement (see sections 0116-0123) a method in a first wireless station (see Figure 1,

reference sign MIP interconnected with GAGW and HAAA interconnected with GAGW

and HAAA, and section 0172 lines 1-5) of a wireless network (see section 0172 and

section 0163 lines 3-5), the method comprising:

wirelessly receiving a configuration request message (see Figure 2, MT sends registration

request to the PAC, which is part of the MIP) from a second wireless station (see Figure

1, reference character MT and section 0171 lines 4-6); and

generating a configuration data message (see Figure 2, section 0180 and 181) for the

second wireless station (see section 0182) including one or more configuration

parameters (see sections 0180-0182) for the second-wireless station (see section 0182),

and wirelessly transmitting (see Section 0171 line 4-6) the configuration data message to

the second wireless station (see section 0182),

such that the second wireless station can be configured (see section 0187).

For claim 24, Havarinen et al discloses a carrier medium (see sections 0134-139),

wherein the generating includes generating random numbers (see section 0189 lines 4-8),

and wherein configuration parameters includes a security key (see section 0198 lines 14-

17).

For claim 25, Havarinen et al. discloses a carrier medium (see sections 0134-139),

wherein the first wireless station is an access point (AP) (see section 0172) of the

network (see Figure 1), and the second wireless station is to be a client station of the AP

(see section 0368).

For claim 36, Havarinen et al. disclose an apparatus in first a station (see Figure 1,

reference sign MIP interconnected with GAGW and HAAA interconnected with GAGW

and HAAA, and section 0172 lines 1-5) of a wireless network (see section 0172), the

apparatus comprising:

means for wirelessly receiving (see section 0172 for wireless, see section 0178 lines 1-4,

FAA, which is part of the MIP, is able to receive from MT) ;

means for wirelessly transmitting (see section 0172 for wireless; see section 0182,

FAAA, which is part of the MIP, send data) and

means for responding (see Figure 2, MIP is responding with a registration reply, also see

section 0180 and 181) to wirelessly receiving (see section 0097 line 1-2, MT is able to

receive) a configuration request message from a second wireless station (see Figure 2,

MT sends registration request to the PAC, which is part of the MIP), the responding

including generating a configuration data message (see Figure 2, section 0180 and 0181,

MIP, GAGW and HAAA create a message with certain parameters) for the second

wireless station (see section 0182, sends the reply to the MT) including one or more

configuration parameters (see sections 0180-0182) for the second wireless station (see

section 0182), and wirelessly transmitting (see Section 0172) the configuration data

message to the second wireless station (see section 0182), such that the second wireless

station can be configured (see section 0187, both the MT and FAAA are configured to

share a common K).

For claim 44, Havarinen et al. teach an apparatus in first a station (see Figure 1, reference

sign MIP interconnected with GAGW and HAAA, and section 0172 lines 1-5) of a

wireless network (see section 0172 and section 0163 lines 3-5), the apparatus comprising:

a wireless transceiver (see section 0178 lines 1-4 and section 0182, FAAA, which is part

of the MIP can send a receive/transmit, see section 0172 for wireless) and able to

wirelessly transmit and wirelessly receive messages to and from (see section 0178 lines

1-4 and section 0182, FAAA, which is part of the MIP can send a receive/transmit, see

section 0172 for wireless) another wireless station (see Figure 1, reference character MT

and section 0171 lines 4-6); .

a processor (see section 0174 lines 5-7) coupled to the transceiver (see section 0178 lines

1-4 and section 0182, FAAA, which is part of the MIP can send a receive/transmit, see

section 0172 for wireless) and configured to cause the transceiver to wirelessly transmit

(see section 0178 lines 1-4 and section 0182, FAAA, which is part of the MIP can send a

receive/transmit, see section 0172 for wireless) a discovery message (see section 0237,

FA is another name for PAC which is part of the MIP),

in the case that a configuration request message (see Figure 2, MT sends registration

request to the PAC, which is part of the MIP) is received from a second wireless station

(see Figure 1, reference character MT and section 0171 lines 4-6), the processor (see

section 0077) further:

to generate a configuration data message (see Figure 2, section 0180 and 181) for the

second wireless station (see section 0182, sends to MT) including one or more

configuration parameters for the second wireless station (see section 0180); and

to cause the wireless transceiver (see section 0178 lines 1-4 and section 0182, FAAA,

which is part of the MIP can send a receive/transmit, see section 0172 for wireless) to

transmit (see section 0178 lines 1-4 and section 0182, FAAA, which is part of the MIP

can send a receive/transmit, see section 0172 for wireless) the configuration data message

to the second wireless station (see section 0182),

such that the second wireless station can be configured (see section 0187).

Havarinen et al is silent about:

For claim 1, 20, waiting for a settable time interval to wirelessly receive a configuration

request message from a second wireless station within the settable time interval; and in

the case a configuration request message is received within the settable time interval,

generating a configuration data message

For claim 36, means for responding waiting for a settable time interval for the means for

wirelessly receiving to receive and respond to receiving a configuration request message

from a second wireless

For claim 44, in the case that a configuration request message is received from a second

wireless station within a settable time period, the processor further configured: to

generate a configuration data message

Narayanan from the same or similar field of endeavor discloses a communication

network with the following features:

For claim 1, 20, Narayanan discloses waiting (see Figure 3, 302) for a time interval (see

section 0025 lines 1-7 "predefined period of time") to wirelessly receive (see Figure 3,

302 and Figure 1, "Mobile Node" and section 0017 lines 1-10 "handoff" and see section

0002 lines 1-5 "roaming....radios, telephones") a configuration request message (see

section 0025 lines 1-7 "registration request....received") from a second wireless station

(see section 0025 lines 1-7 "mobile node 104") within the time interval (see section 0025

lines 1-7 "predefined period of time"); and in the case a configuration request message is

received (see Figure 3, 302 "YES") within the time interval (see Figure 3, 302 "YES"),

generating a configuration data message (see Figure 3, 304 and Figure 1, "REG. REPLY"

between Mobile node and First Foreign agent and section 0016 lines 1-14 "transmit a

registration reply....mobile node...successfully registered..and thus correctly attached to,

the foreign agent").

For claim 36, Narayanan discloses means for responding (see Figure 3, 304 and Figure 1,

"REG. REPLY" between Mobile node and First Foreign agent and section 0016 lines 1-

14 "transmit a registration reply....mobile node...successfully registered..and thus

correctly attached to, the foreign agent") waiting (see Figure 3, 302) for a time interval

(see section 0025 lines 1-7 "predefined period of time") for the means for wirelessly

receiving (see Figure 3, 302 and Figure 1, "Mobile Node" and section 0017 lines 1-10

"handoff" and see section 0002 lines 1-5 "roaming....radios, telephones") to receive (see

Figure 3, 302) and respond (see Figure 3, 304 and Figure 1, "REG. REPLY" between

Mobile node and First Foreign agent and section 0016 lines 1-14 "transmit a registration

reply....mobile node...successfully registered..and thus correctly attached to, the foreign

agent") to receiving a configuration request message (see Figure 3, 302 "YES") from a

second wireless (see section 0025 lines 1-7 "mobile node 104").

For claim 44, Narayanan discloses in the case that a configuration request message is received (see Figure 3, 302) from a second wireless station (see section 0025 lines 1-7 "mobile node 104") within a settable time period (see Figure 3, 302), the processor further configured (see Figure 1, "First Foreign Agent"): to generate a configuration data message (see Figure 3, 304 and Figure 1, "REG. REPLY" between Mobile node and First Foreign agent and section 0016 lines 1-14 "transmit a registration reply....mobile node...successfully registered...and thus correctly attached to, the foreign agent").

Meade from the same or similar field of endeavor discloses a communication network with the following features:

For claim 1, 20, 36 a settable time interval (see section 0045 lines 1-10 "predetermined time duration....set by the manufacturer...or configurable in the field").

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Havarinen by using the features, as taught by Narayanan and Meade, in order to provide improvements to the mobile IP low latency handoffs in order to make it suitable for critical applications (see Narayanan section 0007- 0015); in order to provide a more efficient and convenient system for utilizing networked devices, which do not require manual update and maintenance of the information regarding the network topology (see Meade section 0010-0013)

3.   Claim 2, 3, 5, 21, 22, 37, 38, 47, 48 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Havarinen et al (US 2002/0012433 A1), Narayanan et al (US 2004/0229612)

and Meade, II et al. (US 2002/0184304), in view of Tada et al (US 7,184,707 B2) and Petrus et al

(US 2003/0169722)

For claims 2, 3, 21, 22, 37, 38, Havarinen et al, Narayanan and Meade discloses all of the

claimed invention, as described in paragraph 2.

Additionally, Havarinen et al discloses for the following claims:

For claim 2, 21, 37, Havarinen et al teaches a method, wherein the method further

comprises:

the configuration request message wirelessly (see section 0171 line 4-6) received at the

first station is wirelessly transmitted by the second wireless station (see Figure 2, MT

sends registration request to the PAC, which is part of the MIP, also see section 0189

lines 1-11)

For claim 21, Havarinen et al teaches a carrier medium (see sections 0134-139), wherein

the method further comprises:

the configuration request message wirelessly (see section 0171 line 4-6) received at the

first station is wirelessly transmitted by the second wireless station (see Figure 2, MT

sends registration request to the PAC, which is part of the MIP, also see section 0189

lines 1-11)

Havarinen et, Narayanan and Meade al do not teach:

That the first station sends the request message after it receives the discovery message

from a second station as recited and wherein the transmitting of the configuration

message is after waiting for a backoff time interval as recited in claim 2, 21, 37;

Sending the discovery message at a low RF power as recited in claim 3, 22, 38;

For claim 5, Tada et al. teaches a method, wherein the wirelessly transmitting a discovery

message is in response to wirelessly receiving a command from a user.

For claim 47, that the transmitting of the discovery message is based on receiving a

command from the user.

For claim 48, that there are one or more selectors that correspond to different

configurations.

Tada et al, from the same or similar field of endeavor, teaches the above listed

features, as follows:

For claim 2, 21, 37, Tada et al. teach, wherein the method further comprises:

wirelessly transmitting (see column 6 lines 23-25) a discovery message (see column 6

lines 54-56),wherein a message (see column 6 lines 58-60) wirelessly received at the first

station is wirelessly transmitted (see Figure 1 and column 2 lines 38-41) by the second

wireless station (see column 1 line 50-65) in response to the discovery message being

wirelessly received by the second wireless station (see column 6 lines 50-65).

For claim 3,22, 38, Tada et al teach, wherein the method further comprises:

setting the output RF power level to a relatively low level for the wirelessly

transmitting of the discovery message (see column 18 lines 21-23, device detection is

performed first at the lowest power level),

such that the range of reception of the wirelessly transmitted configuration data message

is limited.

For claim 5, Tada et al. teaches a method, wherein the wirelessly transmitting a discovery

message (see section 6 lines 54-56) is in response to wirelessly (see Figure 1 and column

2 lines 38-41) receiving a command from a user (see column 16 lines 47-51).

For claim 21, Tada et al. teaches a carrier medium (see column 8 lines 4-8) , wherein the

method further comprises:

wirelessly transmitting (see column 6 lines 23-25) a discovery message (see column 6

lines 54-56),

wherein a message (see column 6 lines 58-60) wirelessly received at the first station is

wirelessly transmitted (see Figure 1 and column 2 lines 38-41) by the second wireless

station (see column 1 line 50-65) in response to the discovery message being wirelessly

received by the second wireless station (see column 6 lines 50-65).

For claim 22, Tada et al teaches a carrier medium (see column 8 lines 4-8), wherein the

method further comprises:

setting the output RF power level to a relatively low level for the wirelessly

transmitting of the discovery message (see column 18 lines 21-23, device detection is

performed first at the lowest power level),

such that the range of reception of the wirelessly transmitted configuration data message

is limited.

For claim 47, Tada et al teach a user interface (see Figure 12) wherein the wirelessly

transmitting the discovery message (see column 6 lines 54-56) in response to the user

interface wirelessly (see Figure 1 and column 2 lines 38-41) receiving a command from a

user (see column 16 lines 47-51 and column 16 lines 43-51),

such that a user can initiate the configuration (see column 16 lines 43-51).

For claim 48, Tada et al teach wherein the command includes one or more selectors (see

Figure 12), each selector corresponding to a set of configuration parameters (see column

16 lines 47-51), and wherein the generating a configuration data message includes

configuration parameters from the set of configuration parameters corresponding to the

selector (see column 16 lines 55-66).

Petrus from the same or similar field of endeavor discloses a communication

network with the following features:

For claims 2, 21, 37, Petrus discloses wherein the transmitting of the configuration

message (see section 0060 lines 1-11 "configuration message CM...is sent ") is after

waiting for a backoff time interval (see section 0060 lines 1-11 configuration message

CM...is sent...exactly after 5 msec ")

Thus it would have been obvious to one of ordinary skill in the art at the time of

invention was made to combine incorporate the discovery message method taught by

Tada et al. into the wireless network thought by Havarinen et al. One could have

implemented features involving the discovery message, possibly in software, for the

apparatus and network taught by Havarinen et al. For example one could have

programmed the access points to send a discovery message when they discover a mobile

node. The devices in the MIP are capable of accomplishing such a task. Additionally,

Havarinen et al teaches that a discovery message can be used in their method (see section

0237), however does not further expand on the idea. Furthermore, it would have been

possible to incorporate the method of sending a low-powered discovery signal, via

control software and/or circuitry into the access point of the MIP as taught by Havarinen

et al. Additionally, one could have incorporated the antenna into the MIP as taught by

Havarinen et al by incorporating additional hardware and circuitry. Finally, the user

interface, configuration parameters and the consequent generation of configuration

message based on the selection can all be implemented in software.

For claim 2,21, 37 the motivation is that a communication between the mobile terminal

and the MIP can be established, in order to provide wireless services.

For claims 3, 22, and 38 the motivation is that one is able to establish the radio link state,

between a mobile terminal and a stationary terminal.

For claim 5, the motivation is that the user is given the capability to discover certain

mobile stations while excluding others.

For claim 47, the motivation is that the user is provided with an interface where he/she

can make selection on the connection configurations.

For claim 48, the motivation is that the user is provided with an interface where he/she

can make selection on the connection configurations.

It would have been obvious to one of the ordinary skill in the art at the time of the

invention to modify the system of Havarinen et al (US 2002/0012433 A1), Narayanan et

al (US 2004/0229612) and Meade, II et al. (US 2002/0184304), and Tada et al (US

7,184,707 B2) by using the features, as taught by Petrus, in order to provide a frame

structure that allows uplink and downlink slots to share a single frame without

interference (see section 0006-0017)

4.   Claim 8-10, 26, 27, 42,43 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Havarinen et al (US 2002/0012433 A1), in view of Narayanan et al (US 2004/0229612) and

Meade, II et al. (US 2002/0184304), in view of Grobler et al (US 2005/0048997).

Havarinen et al teaches all the claimed invention as described in paragraph 2. Havarinen

et al does not teach:

        802.11 standards as recited in claim 8, 26, 42

        security key as recited in claim 9.

        WEP key as recited in claim 10, 27, 43.

Grobler et al, from the same or similar field of endeavor, teaches the above listed

features.

For claim 8, 26, 42, Grobler et al teaches, wherein the wireless network (see Figure 1

and section 0012 lines 1-3) substantially conforms to one of the IEEE 802.11 standards or

a derivative thereof (see section 0029 lines 3-10).

For claim 9 , Grobler et al teaches a method, wherein the configuration parameters (see

section 0011 lines 1-3) includes a security key (see Table 8 under "WEP" and "WEP

keys" and Table 6 under "Security", a WEP key is a security key).

For claim 10, 27, 43, Grobler et al teaches, wherein the configuration parameters (see

section 0011 lines 1-3) includes a WEP key (see Table 8 under "WEP" and "WEP keys"

and Table 6 under "Security").

Thus it would have been obvious to one of ordinary skill in the art at the time of

invention was made to include the 802.11 standard, security and WEP key into the

network as taught by Havarinen et al (US 2002/0012433 A1), in view of Narayanan et al

(US 2004/0229612) and Meade, II et al. (US 2002/0184304)

The devices in the network as taught by Havarinen et al (US 2002/0012433 A1), in view

of Narayanan et al (US 2004/0229612) and Meade, II et al. (US 2002/0184304)

are programmable, thus it would be possible to implement the 802.11 standard, security

and WEP via software.

The motivation for claims 8, 26, 42, is that if the network and the devices comply with

802.11 standards one is able to apply that network architecture to a wide variety of

devices that comply with 802.11, making it diverse.

The motivation for claims 9 is that if a security key is included, it makes the connection

secure, preventing unauthorized access to information or service.

The motivation for claims 10, 27, 43 is that if a WEP key is included, it makes the

connection secure, preventing unauthorized access to information or service.

5.   Claim 12, 14, 16, 29, 31, 33, 49, 52, 54 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Havarinen et al (US 2002/0012433 A1) in view of Petrus et al (US

2003/0169722) and Meade, II et al. (US 2002/0184304)

For claims 12, 29 Havarinnen discloses a method in a first wireless station (see Figure 1,

"MT") of a wireless network (see sections 00162-0163 "GSM ...UMTS....wireless

LAN"), the method comprising:

wirelessly transmitting a configuration request message (see Figure 2, MT sends

registration request to the PAC, which is part of the MIP, see section 0189 lines 1-11),

wirelesslv (see sections 00162-0163 "GSM ...UMTS....wireless LAN") receiving a

configuration data message (see Figure 2, "Registration Reply with a new Session Key")

from a second wireless station (see Figure 2, "PAC" and section 0172 "Access Points

AP...PAC"), the configuration data message (see Figure 2, "Registration Reply with a

new Session Key") being transmitted (see Figure 2, "Registration Reply with a new

Session Key") by the second wireless (see Figure 2, "PAC" and section 0172 "Access

Points AP...PAC") in response to the second station (see Figure 2, "PAC" and section

0172 "Access Points AP...PAC") receiving the configuration request message (see

Figure 2, MT sends registration request to the PAC, which is part of the MIP, see section

0189 lines 1-11) extracting one or more configuration parameters (see sections 0180-

0187 "at least one RAND and SIGNrand....K....n

RANDS...SIGNrand...nSRESs...SIGNress") from the configuration data message (see

Figure 2, "Registration Reply with a new Session Key"); and applying the one or more

configuration parameters (see sections 0180-0187 "at least one RAND and

SIGNrand....K....n RANDS...SIGNrand...nSRESs...SIGNress...MT,...calculation of

the K....FAAA and the MT share the K") to the first wireless station (see Figure 2, MT)

to configure (see sections 0180-0187 "at least one RAND and SIGNrand....K....n

RANDS...SIGNrand...nSRESs...SIGNress...MT,...calculation of the K....FAAA and

the MT share the K") the first wireless station (see Figure 2, MT), such that the first

wireless station (see Figure 2, MT) can be automatically configured (see sections 0180-

0187 "at least one RAND and SIGNrand....K....n

RANDS...SIGNrand...nSRESs...SIGNress...MT,...calculation of the K....FAAA and the MT share the K").

For claim 29, Havarinnen furthermore discloses, computer-readable medium see sections 0134-139) encoded with computer executable instructions (see sections 0116-0123) that when executed bv a processor (see sections 0116-0123) in a first

wireless station (see Figure 1, reference sign MIP interconnected with GAGW and HAAA interconnected with GAGW and HAAA, and section 0172 lines 1-5) of a wireless network (see section 0172 and section 0163 lines 3-5) to cam out a method (see Figure 2 and section 0177) in the first wireless station (see Figure 1, reference sign MIP interconnected with GAGW and HAAA interconnected with GAGW and HAAA, and section 0172 lines 1-5)

For claim 49, Havarinen et al discloses an apparatus in a first wireless station (see Figure 1, reference character MT and section 0171 lines 4-6) of a wireless network network (see section 0172), the apparatus comprising:

means for wirelessly receiving (see section 0097 line 1-2, MT is able to receive);

means for wirelessly transmitting (see section 0237, MT is able to transmit); and

means for responding to wirelessly receiving (see section 0097 line 1-2, MT is able to receive) a configuration data message from a second wireless station (see Figure 2, the MT receives the Registration Reply, then it sends a Registration Request with an SRES extension), the responding to wirelessly receiving a configuration data message including extracting one or more configuration parameters from the configuration data message

(see section 0183-0184, the MT uses the RAND and SIGNrand sent to it by the FAAA,

which is part of the MIP; after that the MP responds by sending SIGNres back to the

FAAA), and applying the one or more configuration parameters to the first wireless

station (see section 0183, MT applies data sent by the FAAA to calculate a value (K)),

such that the first wireless station can be configured (see section 0187, calculated K value

is used to configure the station)

wherein the apparatus (see Figure 1, reference character MT and section 0171 lines 4-6)

is configured such that the-means for wirelesslv transmitting (see section 0237, MT is

able to transmit) transmits a configuration request message (see Figure 2, "Registration

Request"), and wherein the configuration data

message (see Figure 2, "Registration Reply with a new Session Key") is transmitted bv

the second wireless station (see Figure 2, "Registration Reply with a new Session Key"

and Figure 2, "PAC" and section 0172 "Access Points AP...PAC") in response to the

second station (see Figure 2, "PAC" and section 0172 "Access Points AP...PAC")

receiving the configuration request message (see Figure 2, MT sends registration request

to the PAC, which is part of the MIP, see section 0189 lines 1-11) ,

such that the first wireless station (see Figure 1, reference character MT and section 0171

lines 4-6) can be configured (see section 0187, calculated K value is used to configure the

station and sections 0180-0187 "at least one RAND and SIGNrand....K....n

RANDS...SIGNrand...nSRESs...SIGNress...MT,...calculation of the K....FAAA and

the MT share the K").

For claim 14, and 52, Havarinen et al. disclose, wherein the first wireless station (see section 0244 lines 6-9) is configured only if a user selects the first wireless station to be configurable (see section 0244 lines 6, accessing the network entails performing the configuration procedure as taught by Havarinen et al).

For claim 16 and 54, Havarinen et al. disclose, wherein the second wireless station is an access point (AP) (see section 0172) of the network (see Figure 1), and the first wireless station is a client station of the AP (see section 0368).

For claim 31, Havarinen et al. disclose a carrier medium (see sections 0116-0123), wherein the first wireless station (see section 0244 lines 6-9) is configured only if a user selects the first wireless station to be configurable (see section 0244 lines 6, accessing the network entails performing the configuration procedure as taught by Havarinen et al).

For claim 33, Havarinen et al. disclose a carrier medium (see sections 0116-0123), wherein the second wireless station is an access point (AP) (see section 0172) of the network (see Figure 1), and the first wireless station is a client station of the AP (see section 0368).

Havarinen is silent about:

As regarding claim 12,29,49 a configuration data message being transmitted by a wireless station within a settable time interval.

Petrus from the same or similar field of endeavor discloses a communication network

with the following features:

For claim 12,29,49 Petrus discloses a configuration data message (see section 0060 lines

1-11 "configuration message") being transmitted "see section 0060 lines 1-11 "is sent")

by a wireless station (see section 0023 lines 1-14 "base station") within a time interval

(see section 0060 lines 1-11 "exactly after 5msec").

Meade from the same or similar field of endeavor discloses a communication network

with the following features:

For claim 12,29,49 Meade discloses a settable time interval (see section 0045 lines 1-10

"predetermined time duration....set by the manufacturer...or configurable in the field").

It would have been obvious to one of the ordinary skill in the art at the time of the

invention to modify the system of Havarinen et al (US 2002/0012433 A1 by using the

features, as taught by Petrus and Meade, in order to provide a frame structure that allows

uplink and downlink slots to share a single frame without interference (see Petrus section

0006-0017); in order to provide a more efficient and convenient system for utilizing

networked devices, which do not require manual update and maintenance of the

information regarding the network topology (see Meade section 0010-0013)

6.   Claim 13, 30, 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Havarinen

      et al (US 2002/0012433 A1) in view of Petrus et al (US 2003/0169722) and Meade, II et al.

(US 2002/0184304) as applied to claims 12, 29,49 above, further in view of Tada et al (US

7,184,707 B2)

For claims 13, 30, 51, Havarinnen, Petrus and Meade disclose all the claimed invention in

paragraph 5.

For claim 13, Havarinen et al discloses a method as, further comprising: that the

wirelessly transmitting of the configuration request message (see Figure 2, MT sends

registration request to the PAC, which is part of the MIP, see section 0189 lines 1-11)

For claim 30, Havarinen et al discloses a carrier medium (see sections 0116-0123),

further comprising: that the wirelessly transmitting of the configuration request message

(see Figure 2, MT sends registration request to the PAC, which is part of the MIP, see

section 0189 lines 1-11).

For claim 51, Tada et al. teach wherein the means for wirelessly transmitting a

configuration request transmits (see Figure 2, MT sends registration request to the PAC,

which is part of the MIP, see section 0189 lines 1-11, thus it has means transmitting

request) and wirelessly transmitting a configuration request message to the second

wireless station message (see Figure 2, MT sends registration request to the PAC, which

is part of the MIP, see section 0189 lines 1-11).

Havarinen et al does not teach:

Transmission of request message is in response to receiving a discovery message as

recited in claim 13, 30, 51.

Tada et al, from the same or similar field of endeavor, teaches the above listed features, as

follows:

For claim 13, Tada et al teaches a method, further comprising:

wirelessly receiving (see Figure 8 and column 2 lines 38-41) a discovery message from

the second wireless station (see column 6 lines 54-56) such that the wirelessly (see Figure

1 and column 2 lines 38-41) transmitting of a message is in response to the receiving of

the discovery message (see Column 6 lines 50-65).

For claim 30, Tada et al teach a carrier medium (see column 8 lines 4-8) , wherein the

method further comprises:

wirelessly receiving (see Figure 8 and column 2 lines 38-41) a discovery message from

the second wireless station (see column 6 lines 54-56) such that the wirelessly (see Figure

1 and column 2 lines 38-41) transmitting of a message is in response to the receiving of

the discovery message (see Column 6 lines 50-65).

For claim 51, Tada et al teach An apparatus wherein, sending a message is in response to

wirelessly receiving (see Figure 8 and column 2 lines 38-41) a discovery message from

the second wireless station (see column 6 lines 54-56), the responding to wirelessly

wirelessly (see Figure 1 and column 2 lines 38-41) receiving a discovery message (see

Column 6 lines 50-65).

Thus it would have been obvious to one of ordinary skill in the art at the time of

invention was made to combine incorporate the discovery message method taught by

Tada et al. into the wireless network thought by Havarinen et al. One could have

implemented features involving the discovery message, possibly in software, for the

apparatus and network taught by Havarinen et al. For example one could have

programmed the access points to send a discovery message when they discover a mobile

node. The devices in the MIP are capable of accomplishing such a task. Additionally,

Havarinen et al teaches that a discovery message can be used in their method (see section

0237), however does not further expand on the idea. Furthermore, it would have been

possible to incorporate the method of sending a low-powered discovery signal, via

control software and/or circuitry into the access point of the MIP as taught by Havarinen

et al. Additionally, one could have incorporated the antenna into the MIP as taught by

Havarinen et al by incorporating additional hardware and circuitry. Finally, the user

interface, configuration parameters and the consequent generation of configuration

message based on the selection can all be implemented in software.

For claim 13, 30, and 51 the motivation is once a wireless service providing station has

found an eligible mobile terminal, the terminal can send a request in order to establish a

connection and /or wireless service.

7. Claim 15, 32, and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Havarinen

et al (US 2002/0012433 A1) in view of Petrus et al (US 2003/0169722) and Meade, II et al.

(US 2002/0184304) as applied to claims 12, 29, 49 above ,further in view of Smetters et al

(US 2004/0266449 A1).

For claims 15, 32, and 53, Havarinen et al teach all the claimed invention as disclosed in

paragraph 6. Havarinen et al do not teach that the request message is sent in response to a

command from the user as recited in claim 15 and 32. Smetters et al, from the same or

similar field of endeavor, teaches wherein the wirelessly transmitting a configuration

request message (see section 0074 lines 6-12) is in response to wirelessly receiving a

command from a user (see section 0074 lines 6-12). Thus it would have been obvious to

one of ordinary skill in the art at the time of invention was made to incorporate the

method thought by Smetters et al into the network or Havarinen et al. Here one could

have programmed the mobile terminal as thought by Havarinen et al to send a

configuration request message when the user initiates it with a command on the terminal.

The motivation is that it enables the user to have a choice when to establish a connection.

8.   Claim 17-19, 34, 35, 55, 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Havarinen et al (US 2002/0012433 A1) in view of Petrus et al (US 2003/0169722) and

Meade, II et al. (US 2002/0184304) as applied to claims 16, 33, 54 above, further in view of

Grobler et al (US 2005/0048997).

Havarinen et al, Petrus, and Meade teaches all the claimed invention as described in

paragraph 5. Havarinen et al does not teach:

802.11 standards as recited in claim 18, 34, 55;

security key as recited in claim 17;

WEP key as recited in claim 19, 35, 56;

Grobler et al, from the same or similar field of endeavor, teaches the above listed

features.

For claim *18, 34, 55*, Grobler et al teaches, wherein the wireless network (see Figure 1

and section 0012 lines 1-3) substantially conforms to one of the IEEE 802.11 standards or

a derivative thereof (see section 0029 lines 3-10).

For claim 17, Grobler et al teaches a method, wherein the configuration parameters (see section 0011 lines 1-3) includes a security key (see Table 8 under "WEP" and "WEP keys" and Table 6 under "Security", a WEP key is a security key).

For claim *19, 35, 56*, Grobler et al teaches, wherein the configuration parameters (see section 0011 lines 1-3) includes a WEP key (see Table 8 under "WEP" and "WEP keys" and Table 6 under "Security").

Thus it would have been obvious to one of ordinary skill in the art at the time of invention was made to include the 802.11 standard, security and WEP key into the network as taught by Havarinen et al. The devices in the network as taught by Havarinen et al. are programmable, thus it would be possible to implement the 802.11 standard, security and WEP via software.

The motivation for claims *18, 34, 55*, is that if the network and the devices comply with 802.11 standards one is able to apply that network architecture to a wide variety of devices that comply with 802.11, making it diverse.

The motivation for claim 17 is that if a security key is included, it makes the connection secure, preventing unauthorized access to information or service.

The motivation for claims *19, 35, 56* is that if a WEP key is included, it makes the connection secure, preventing unauthorized access to information or service.

9.   Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Havarinen et al

(US 2002/0012433 A1), in view of Narayanan et al (US 2004/0229612) and Meade, II et al. (US

2002/0184304), further in view of Dwornik (US 2003/0003860 A1):

> Havarinen et al and Tada et al teach all the claimed invention as described in paragraph
>
> 10. Havarinen et al and Tada et al do not teach an antenna, a variable attenuator, and
>
> transceiver. Dwornik from the same or similar field of endeavor, teaches a variable
>
> attenuator (see Figure 1A, reference characters 1202 and column 0024 lines 21-22)
>
> between the antenna (see Figure 1B, reference characters 101 and see section 0019 lines
>
> 3-9) and the transceiver (see Figure 1A, reference character 100, see section 0019 lines 3-
>
> 9, a modem is a Transceiver). Thus it would have been obvious to one of ordinary skill in
>
> the art at the time of invention was made to include antenna, a variable attenuator, and
>
> transceiver into the devices of the MIP as taught Havarinen et al (US 2002/0012433 A1),
>
> in view of Narayanan et al (US 2004/0229612) and Meade, II et al. (US 2002/0184304).
>
> One could have implemented those components via additionally hardware and circuitry
>
> into the access points which are part of the MIP. The motivation is that one is able to
>
> control the reception/transmission of electromagnetic signals better.

10.   Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Havarinen et al

(US 2002/0012433 A1), in view of Narayanan et al (US 2004/0229612) and Meade, II et al. (US

2002/0184304), further in view of Grzeczkowski (US 2003/0143946 A1):

> Havarinen et al and Tada et al teach all the claimed invention as described in paragraph
>
> 10. Havarinen et al and Tada et al do not teach a user interface for providing status

information. Grzeczkowski, from the same or similar field of endeavor, teaches a display

that communicates the status of the configuration sequence to a user (see section 0010

lines 1-10). Thus it would have been obvious to one of ordinary skill in the art at the time

of invention was made to incorporate a display that show the status into one of the

devices in the MIP, GAGW or HAAA as taught by Havarinen et al (US 2002/0012433

A1), in view of Narayanan et al (US 2004/0229612) and Meade, II et al. (US

2002/0184304). Those devices compromise of server which are capable to connect to

display devices. Thus one could implement, via software, a program that shows the status

of the configuration. The motivation is that the user/administrator is able to diagnose if

/where a fault occurs.

Allowable Subject Matter

11. Claim 4, 23, 39 are objected to as being dependent upon a rejected base claim, but would

be allowable if rewritten in independent form including all of the limitations of the base

claim and any intervening claims.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

12.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

US-2001/0014593 A1	MCCUNE, EARL
US-2003/0005290 A1	Fishman et al.
US-2003/0035545 A1	Jiang, Sam Shiaw-Shiang
US-2004/0082327 A1	Kim et al.
US-6,775,559 B1	Weghorst et al.
US-6,788,959 B2	Jokinen et al.
US-2004/0198319 A1	Whelan et al.
US-2005/0048963 A1	Kubler et al.
US-2005/0101340 A1	Archiable, Donald Paul
US-7,003,295 B1	Cook et al.
US-7,133,526 B2	Whelan et al.

The reference are cited to show network and methods for connection establishment and authentication.

13.Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenan Cehic whose telephone number is (571) 270-3120. The examiner can normally be reached on Monday through Friday 7:30AM to 5:00PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kwang Yao can be reached on (571) 272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KC

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SUPERVISORY PATENT EXAMINER